

**REMARKS**

This response, submitted in response to the Office Action dated July 2, 2003, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

As a preliminary matter, Applicant has amended Figs. 1, 2, 3 and 6 as indicated above. Applicant respectfully requests that the Examiner review and approves the attached drawings. Also, the Examiner has objected to the Abstract since it exceeds 150 words. Applicant has amended the Abstract as indicated above.

Claims 1-18 are pending in the application. Claims 1-15 have been allowed. Claims 19-26 have been withdrawn from the present application. Claims 16 and 18 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Ito et al. (U.S. Patent 6,301,383, hereinafter "Ito"). Claim 17 has been rejected under 35 U.S.C. § 102(b) as being anticipated by Hoshino (U.S. Patent 5,317,426). Applicant submits the following in traversal of the rejections.

**Rejection of claims 16 and 18 as being anticipated by Ito**

The Examiner maintains Ito discloses the elements of claims 16 and 18. Claim 16 describes a method of compressing/extending a color reproducing space comprising *before* the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device is transformed into the color reproducing space of a second image input/output device having a different shape or size of the color reproducing space, correcting an edge shape of a color gamut of said second image input/output device in accordance with an edge shape of a color gamut of the first image input/output device.

Claim 18 describes a method of compressing/extending a color reproducing space when the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device is transformed into the color reproducing space of a second image input/output device having a different shape or size of the color reproducing space, providing an adjustment parameter of adjusting at least one of a hue, a chroma range and a lightness region for the purpose of adjusting the color reproducing space and then adjusting at least one of corresponding hue, chroma range, and lightness region of the color reproducing space to transform into by compression or extension without prior edge adjustment.

The Examiner cites Figs. 4, 6, 14-16 and columns 1, 2, and 6-8 in support of the rejection.

Claim 16 describes *before* the color reproducing space is compressed or extended correcting an edge shape of a color gamut of said second image input/output device in accordance with an edge shape of a color gamut of the first image input/output device.

Fig. 14 shows the gamut of the printer 64 is narrower than the gamut of the monitor 63. The colors in hatches ranges on the monitor 63 cannot be reproduced by the printer 64. Color signals from the monitor are converted to signals within the gamut of the printer by performing color-gamut mapping. Fig. 15 illustrates a method of decreasing only chroma while fixing lightness and chroma and Fig. 16 discloses a method of determining the lightness and chroma of output color signals so that the sum of the lightness-difference square and the chroma-difference square in input color signals and output color signals is minimized while fixing hue. Column 2, lines 1-30. The figures do not appear to disclose correcting an edge shape before the color

reproducing space is compressed or extended. If anything, it appears that the figures merely disclose compression.

Fig. 4 describes obtaining data through interpolation, (column 5, lines 24-29), Fig. 6 describes the generation of a lookup table which is used for conversion of signals during compression, (columns 34-36) and Fig. 10 shows correspondences between compression coefficients and psychologically physical amounts, obtained when visual experiments were performed concerning three CG images for 24 persons to be tested, (column 7, lines 66-67 to column 8, lines 1-4). The figures do not disclose correcting an edge shape of a color gamut before compression, as described in claim 16.

Furthermore, columns 6-8 describe gamut mapping and the process of converting signals for compression so that a color difference is minimized. There does not appear to be any indication that an edge shape is corrected prior to the compression (claim 16).

Claim 18 describes similar features including adjustment of a parameter of the reproduction space followed by compression or extension. In Ito, such discrete adjustments are not performed.

For the above reasons, claims 16 and 18 should be deemed patentable.

**Rejection of claim 17 as being anticipated by Hoshino**

The Examiner maintains Hoshino discloses *before* the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device is transformed into the color reproducing space of a second image input/output device having a different shape or size of the color reproducing space, correcting a non-linear portion of

an edge shape of a color gamut of said first image input/output device or said second image input/output device in a linear manner, as described in claim 17.

Hoshino relates to a color estimation method suited to a color component image correcting device which is used so as to reproduce a color image of color hard copy (input) as a color CRT image (output). See abstract. FIGS. 15-19 disclose a straight line which shows how to change lightness  $L^*$  and chroma  $r$  in accordance with the input/output color solids. The purpose of the straight line is to extend the target value and determine the rate at which the lightness is decreased or increased so that the increase in chroma is determined. This is part of the extension process and does not occur *before* extension. Column 14, lines 43-51. Therefore, claim 17 should be deemed patentable.

Applicant has added claims 27-39 to provide a more varied scope of protection.

Ito and Hoshino suffer from a deficiency in that both references only disclose correction of a peripheral area of a color reproducing space and do not include correction of a central portion (Ito, column 1, lines 10-14, Hoshino, column 3, lines 54-57). On the other hand, with the present invention, the entire color reproducing space is corrected and not just a peripheral region. See page 5, lines 11-19. Therefore, claims 27-32 should be deemed allowable.


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. APPLN. NO. 09/617,920

ATTORNEY DOCKET NO. Q58735

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

  
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CUSTOMER NUMBER

Date: November 3, 2003 (*Sunday being November 2, 2003*).



FIG. 1

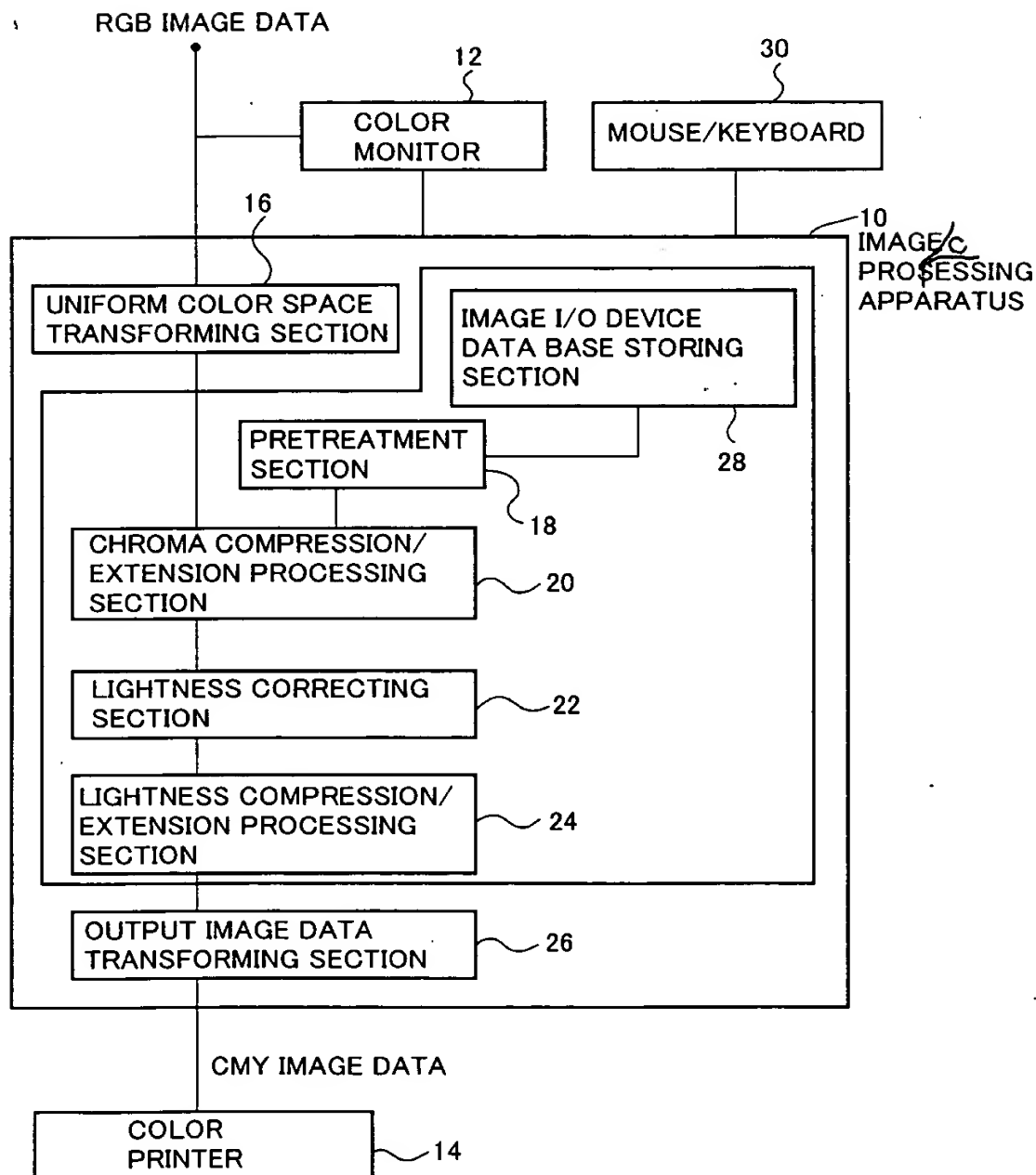




FIG. 2

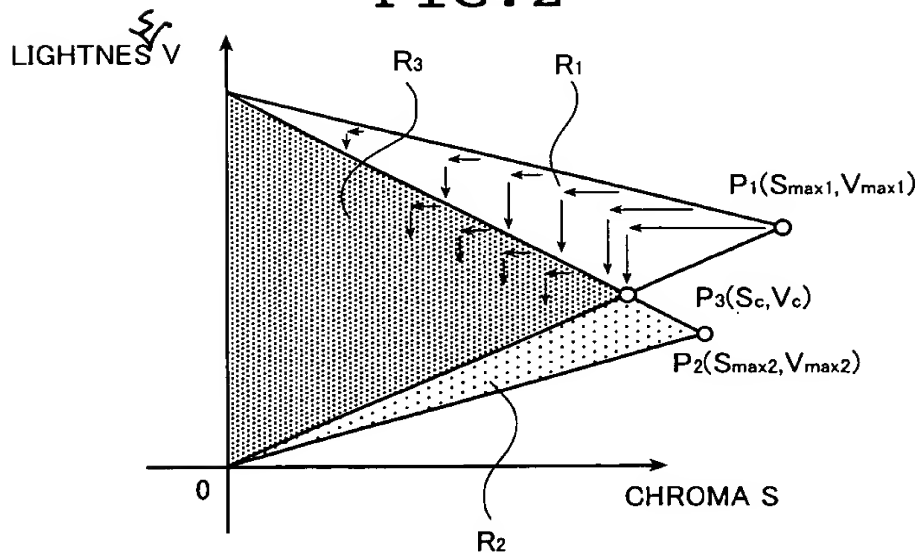
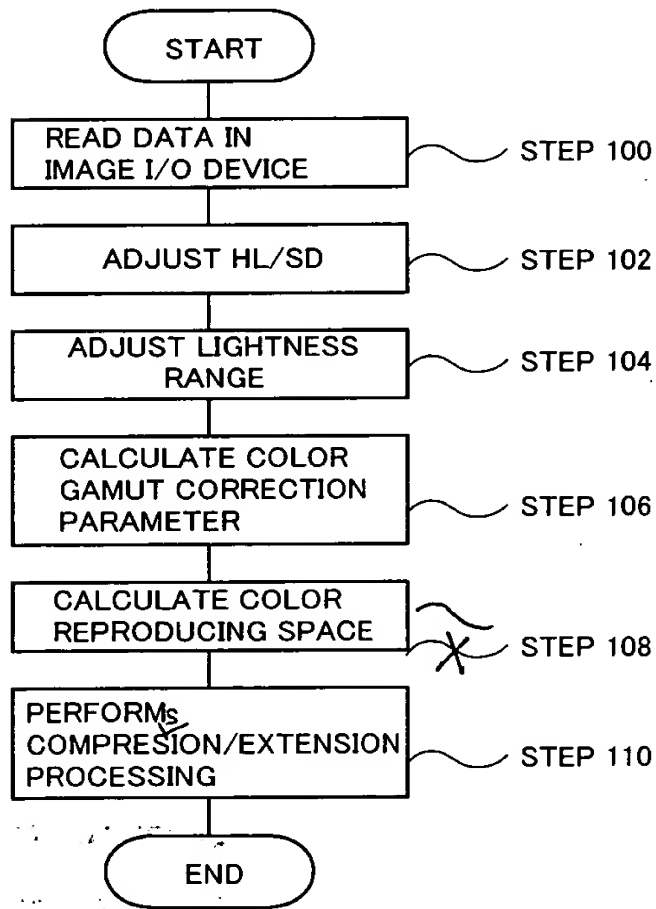


FIG. 3





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FIG. 6

